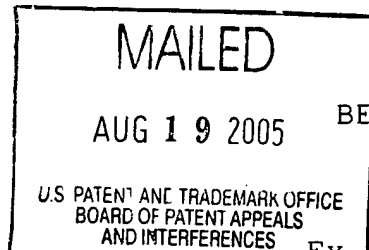


The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE



BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHANNES HENDRIKUS VAN LITH,
JEROEN HERMAN VAN LIEMPD
and MARCO VAN SCHAIK

Appeal No. 2005-1764
Application No. 09/883,364

ON BRIEF

Before KIMLIN, OWENS and WALTZ, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 2 and 9-13. Claim 1 is illustrative:

1. A driving belt for use in a continuously variable transmission comprising V-shaped pulleys (2, 3), which driving belt (1) comprises:

a carrier consisting of two metallic endless band packages (5, 6) lying side by side, on which transverse metal elements (4) are disposed freely moveable in a longitudinal direction of the band, wherein,

the transverse element is a cut single piece of material,

each transverse element (4) includes two recesses (7, 8) positioned opposite each other for receiving the band packages (5, 6), so that a first part (11) of the transverse element (4) extends under said band packages (5, 6), a second part (12) of the transverse element (4) is positioned between said band packages (5, 6) and third part (13) of the transverse element (4) extends above said band packages (5, 6),

the front side of the first part (11) of the transverse element (4) includes a tilting line (18) extending in a horizontal direction and forming a transition between a part of the element at least including said third part (13) that has a substantially constant thickness as seen in side elevation and a further part of the element wherein said thickness tapers in a downward direction away from the tilting line (18), and includes a projection (14) which can mate with a recess (15) in the adjacent transverse element (4) in a manner allowing free movement of adjacent elements in the longitudinal direction of the belt,

which recess (15) is a deformation recess on the rear side of the transverse element, the rear side being deformed to such an extent that the projection (14) is formed on the front side of the transverse element from displaced deformation material forming the recess,

said projection (14) and said recess (15) extend in a horizontal direction over the entire dimension of the second part (12),

said projection (14) and said recess (15) are mainly formed in the second part of the transverse element (4), and

said projection (14) is disposed some distance above the tilting line (18), which distance is smaller than the smallest vertical dimension (A) of the recess (7, 8).

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The examiner relies upon the following references as evidence of obviousness:

| | | |
|-----------------------------------|-----------|--------------|
| Masuda et al. (Masuda) | 5,169,369 | Dec. 8, 1992 |
| Takagi (Japanese Kokai Patent) | 01-247841 | Oct. 3, 1989 |

Appellants' claimed invention is directed to a driving belt used in a continuously variable transmission that comprises, inter alia, transverse elements that include two recesses positioned opposite each other for receiving metallic endless band packages. Also, a first part of the transverse element extends under the band packages and includes a projection (14) which can mate with a recess (15) in an adjacent transverse element. A second part (12) of the transverse element is positioned between the band packages, and the projection (14) and recess (15) in the first part of the transverse element extend in a horizontal direction over the entire dimension of the second part (12).

Appealed claims 1, 2, 10, 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masuda in view of Takagi. Claims 9 and 11 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Masuda in view of Takagi and Maruyama. However, we note that the examiner does not list Maruyama in the prior art of record in the Answer, and there is

no discussion of Maruyama in either the Answer or appellants' principal and reply briefs on appeal. Accordingly, we consider all the appealed claims to be rejected under the combination of Masuda and Takagi.¹

We have thoroughly reviewed the respective positions advanced by appellants and the examiner. However, we are in agreement with appellants that the examiner has failed to establish a prima facie case of obviousness for the claimed subject matter. Accordingly, we will not sustain the examiner's rejection.

The examiner acknowledges that "Masuda et al. do not disclose that the projection and recess extend in the horizontal direction over the entire dimension of the second part" (page 3 of Final rejection, second paragraph). However, since Takagi discloses a projection and recess which extend in the horizontal direction over the entire dimension of the second part, the examiner concludes that it would have been obvious for one of ordinary skill in the art to modify the projection and recess of Masuda accordingly, i.e., to extend over the entire dimension of the second part for the purpose of improving the efficiency of power transmission.

¹ We note that Masuda is misspelled at page 3 of the Answer.

Appellants devote a substantial portion of their principal and reply briefs to the argument that the protrusion and groove parts of Takagi are engaged with each other to form an interlocking hinge, and that "the elements of TAKAGI are not adapted for mutually independent functioning as the TAKAGI elements are interconnected (hinged) and are not slidable independently of each other along the endless band" (page 10 of principal brief, last paragraph). Appellants emphasize that "the TAKAGI belt is of a different operational type from the MASUDA et al. belt with structural requirements inconsistent with MASUDA et al. and would therefore not be a teaching source for MASUDA et al." (id.). Appellants further state that "there is no teaching that the full width extension feature is to be isolated from the hinge construction chosen by TAKAGI or is advantageous apart from the interlocking groove and projection of TAKAGI" (page 12 of principal brief, second paragraph). Appellants further point out that:

TAKAGI is directed to include a pulling function (also note the Abstract being silent as to any pushing function) whereas MASUDA et al. is directed to a type of a push belt where longitudinally interlocking projections can not stand the high forces in push belt applications without a high volume of material being applied for supporting the projections [page 13 of principal brief, third paragraph].

In addition, appellants urge the following at page 14 of the principal brief, first paragraph:

One of skill would appreciate that TAKAGI requires the recess to extend over the horizontal width of the element to permit assembly of the element as interlocked units. MASUDA et al. do not have this problem as the elements are not interlocked together and there would be no reason to incorporate such an interlocking arrangement into MASUDA et al.

We note that appellants repeat these arguments in the Reply Brief.

In response to appellants' arguments, the examiner simply states that "[t]he Takagi reference is not used to teach the interlocking shape of the recess and projection" (page 5 of Answer, first sentence). However, the examiner utterly fails to address the thrust of appellants' argument that the systems of Masuda and Takagi are not compatible and that one of ordinary skill in the art would not have found a suggestion in Takagi for modifying the differently operating system of Masuda. Consequently, based on the present record, we find that appellants' arguments for nonobviousness outweigh the examiner's arguments for obviousness. At most, the examiner has merely pointed out what one of ordinary skill in the art could have done to modify the driving belt of Masuda, but this is not the proper standard for a conclusion of obviousness within the meaning of

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35 U.S.C. § 103. In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125,
1127 (Fed. Cir. 1984).

In conclusion, based on the foregoing, the examiner's
decision rejecting the appealed claims is reversed.

REVERSED

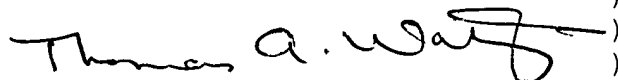


EDWARD C. KIMLIN)
Administrative Patent Judge)



TERRY J. OWENS)
Administrative Patent Judge)

BOARD OF PATENT
APPEALS AND
INTERFERENCES



THOMAS A. WALTZ)
Administrative Patent Judge)

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Young & Thompson
745 South 23rd St.
2nd Floor
Arlington, VA 22202